

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application.

Listing of Claims:

Claims 1-33 (canceled)

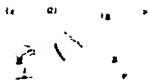
34. (new) A DC/AC converter comprising:

two DC voltage connections, between which are provided in a parallel circuit configuration, an intermediate energy storage and a bridge circuit providing at least two parallel branches, each parallel branch providing two in-series-connected switch units, to each of which a rectifier diode is connected in parallel, and including at least two AC connections, of which each single AC connection is connected via a connecting line, in each of which an inductor is provided, to one of the parallel branches of the bridge circuit between two of the switch units via one connecting node; and wherein

between at least two of the connecting lines, two separate electrical connecting paths are provided, in each of which a switch and an in-series-switched rectifier diode are provided, and the rectifier diodes in each connecting path are switched to each other in an opposite conducting direction.

35. (new) The DC/AC converter according to claim 34, wherein:

a control unit switches the switches in dependence on an AC voltage fed to the AC voltage connections in such a manner that the switch, whose respective rectifier diode is oriented in the conducting direction for a current direction predetermined by the AC voltage source along a respective connecting path, is closed at least at sometime inside the respective connecting path during a half wave of the AC voltage, while the other switch is open.



36. (new) The DC/AC converter according to claim 35, wherein:
the individual switches are switchable in the connecting paths in a time-synchronized manner with positive and negative half waves of the AC voltage fed to the AC voltage connections.

37. (new) The A DC/AC converter according to claim 35, wherein:
the AC voltage is a frequency grid voltage having a frequency of 50 Hz or 60 Hz.

38. (new) The DC/AC converter according to claim 35, wherein:
the control unit opens the closed switch in the two separate conducting paths before a half wave of the AC voltage has a voltage zero crossing so that both the switches in the two separate conducting paths are open until a start of a next half wave.

39. (new) The DC/AC converter according to claim 36, wherein:
the control unit opens the closed switch in the two separate conducting paths even before a half wave of the AC voltage has a voltage zero crossing so that both the switches in the two separate conducting paths are open until a start of a next half wave.

40. (new) The DC/AC converter according to claim 35, wherein:
the control unit is provided with constant time function elements which are tuned in dependence on the AC voltage and actuate the switches in the two separate conducting paths with a constant switch-on period.

41. (new) The DC/AC converter according to claim 35, wherein:
the control unit switches the switches in dependence on a current flowing in the connecting paths and on the AC voltage.

42. (new) The DC/AC converter according to claim 34, wherein:
between the two separate electrical connecting paths, an electrical connection is provided.

43. (new) The DC/AC converter according to claim 42, wherein:
the electrical connection is connected to one of the connecting paths centered between the switches in the two separate conducting paths and the in-series-connected rectifier diode.

44. (new) A DC/AC converter comprising:
two DC voltage connections, between which are provided in a parallel circuit configuration, an intermediate energy storage and a bridge circuit providing at least two parallel branches, each parallel branch providing two in-series-connected switch units, to each of which a rectifier diode is connected in parallel, and including at least two AC connections, of which each single AC connection is connected via a connecting line, in each of which an inductor is provided, to one of the parallel branches of the bridge circuit between two of the switch units via one connecting node and wherein;

between the at least two connecting lines, a circuit configuration is provided which can be actuated so that the circuit configuration electrically connects the at least two connecting lines with each other in a first state and insulates the two connecting lines from each other in a second state.

45. (new) The DC/AC converter according to claim 44, wherein:
a control unit switches the circuit configuration in dependence on an AC voltage fed to the AC voltage connections so that the circuit configuration assumes a first state at a start and during a half wave of the AC voltage when the switch units are open and assumes a second state when at least one of the switch units is closed; and

at an end of a respective half wave, the circuit configuration remains open until a start of a next half wave.

46. (new) The DC/AC converter according to claim 44, wherein:
said circuit arrangement provides a switch.

47. The DC/AC converter according to claim 35, wherein:

the switch units are crossed in relation to each other inside a bridge circuit, and the rectifier diodes of the switch units are oriented in a fixed direction to a current direction impressed on the parallel branches by an AC voltage applied to the AC connections in the parallel branches; and

the control unit opens and closes the switch units in a synchronized manner according to a predeterminable time pattern in dependence on the AC voltage applied to the AC voltage connections.

48. (new) The DC/AC converter according to claim 44, wherein:

the switch units are crossed in relation to each other inside a bridge circuit, and the rectifier diodes of the switch units are oriented in a fixed direction to a current direction impressed on the parallel branches by an AC voltage applied to the AC connections in the parallel branches; and

the control unit opens and closes the switch units in a synchronized manner according to a predeterminable time pattern in dependence on the AC voltage applied to the AC voltage connections.

49. (new) The DC/AC converter according to claim 47, wherein:

the control unit opens said switch units according to a time pattern during one half wave of the AC voltage and closes the switch units according to a time pattern while other switch units are open; and

the control unit opens the other switch units according to a time pattern with a next half wave and closes the other switch units according to a time pattern while the switch units are open.

50. (new) The DC/AC converter according to claim 48, wherein:

the control unit opens said switch units according to a time pattern during one half wave of the AC voltage and closes the switch units according to a time pattern while other switch units are open; and

the control unit opens the other switch units according to a time pattern with a next half wave and closes the other switch units according to a time pattern while the switch units are open.

51. (new) The DC/AC converter according to claim 49, wherein:

the switch units are switchable with switch frequencies in a kHz range.

52. (new) The DC/AC converter according to claim 50, wherein:
the switch units are switchable with switch frequencies in a kHz range.

53. (new) The DC/AC converter according to claim 47, wherein:
the time patterns correspond to a pulse width modulation.

54. (new) The DC/AC converter according to claim 48, wherein:
the time patterns correspond to a pulse width modulation.

55. (new) The DC/AC converter according to claim 34, wherein:
the intermediate energy storage is a capacitor.

56. (new) The DC/AC converter according to claim 44, wherein:
the intermediate energy storage is a capacitor.

57. (new) The DC/AC converter according to claim 34, wherein:
the electrical connecting paths are provided between the inductors and
the connecting nodes between the at least two connecting lines.

58. (new) The DC/AC converter according to claim 44, wherein:
the electrical connecting paths are provided between the inductors and
the connecting nodes between the at least two connecting lines.

59. (new) The DC/AC converter according to claim 34, wherein:
between the connecting paths and the AC connections, an additional
connecting path is provided between the connecting lines including a switch
and an additional buffer capacitor connected in series.

60. (new) The DC/AC converter according to claim 44, wherein:
between the connecting paths and the AC voltage connections, an
additional connecting path is provided between the connecting lines including
a switch and an additional buffer capacitor connected in series.

61. (new) A DC/AC converter comprising:

two DC voltage connections, between which are provided in a parallel circuit configuration, an intermediate energy storage and a bridge circuit providing at least two parallel branches, each branch providing two in-series-connected switch units, to each of which a rectifier diode is connected in parallel, and including at least two AC connections, of which each single AC connection is connected via a connecting line, in each of which an inductor is provided, to one of the parallel branches of the bridge circuit between two of the switch units via one connecting node; and wherein

between the at least two connecting lines, electrical connecting paths are provided, in each of which a component configuration is provided, each of which functions in a same manner as one switch and a rectifier diode connected in series, with the rectifier diodes being switched to each other in the individual connecting paths in an opposite conducting direction.

62. (new) A use of the DC/AC converter according to claim 34, as a grid DC/AC converter.

63. (new) A use of the DC/AC converter according to claim 44, as a grid DC/AC converter.

64. (new) A use of the DC/AC converter according to claim 61, as a grid DC/AC converter.

65. (new) A use according to claim 62, wherein:

one of a photovoltaic unit or a fuel cell unit is applied to the AC voltage connections to generate AC voltage, and a grid voltage with 50 Hz or 60 Hz is applied to the AC connections.

66. (new) A use according to claim 63, wherein:

one of a photovoltaic unit or a fuel cell unit is applied to the AC voltage connections to generate AC voltage, and a grid voltage with 50 Hz or 60 Hz is applied to the AC connections.

67. (new) A use according to claim 64, wherein:
one of a photovoltaic unit or a fuel cell unit is applied to the AC voltage connections to generate AC voltage, and a grid voltage with 50 Hz or 60 Hz is applied to the AC connections.

68. (new) A use of the DC/AC converter according to claim 34, as a DC/AC converter in an island operation.

69. (new) A use of the DC/AC converter according to claim 44, as a DC/AC converter in an island operation.

70. (new) A use of the DC/AC converter according to claim 61, as a DC/AC converter in an island operation.

71. (new) A use according to claim 62, wherein:
the DC/AC converter is transformerless.

72. (new) The use according to claim 62, wherein:
the DC/AC converter is transformerless.

73. (new) The A DC/AC converter according to claim 36, wherein:
the AC voltage is a frequency grid voltage having a frequency of 50 Hz or 60 Hz.

74. (new) The DC/AC converter according to claim 43, wherein:
said circuit arrangement provides a switch.